

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A peptide of general formula I

$Y^1-X^1-Ser-X^2-Ser-X^3-X^4-Asn-Phe-X^5-X^6-X^7-Y^2-D-Tyr-X^8-Val-X^9-Glu-X^{10}$

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

$X^{11}-X^{12}-Ser-X^{13}-X^{14}-Asp$ (I),

20 21 22 23 24 25

in which

Y^1 is Phe, Lys, Cys and Orn, and

Y^2 is Asp, Cys and Glu, and Y^1 also has the meaning of Y^2 , and Y^2 has the meaning of Y^1 , wherein Y^1 and Y^2 are linked to one another via a side chain or a β -turn mimetic agent, and

X^{1-14} represents any amino acid, which can be connected to one another via side chains.

2. (Previously Presented) A peptide of general formula I, according to claim 1, in which

Y^1 is Phe, Lys, Cys and Orn, and

Y^2 is Asp, Cys and Glu, and Y^1 also has the meaning of Y^2 , and Y^2 has the meaning of Y^1 , wherein Y^1 and Y^2 are linked to one another via a side chain or a β -turn mimetic agent, and

X^{1-14} is Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn, Cit, β -Ala, homo-Cys, homo-Ser, Gaba, Can, β -CN-Ala, OH-Pro, OH-Lys, N-Met-Lys, Met-His, desmosine and djenkolic acid, which can be connected to one another via side chains.

3. (Previously Presented) A peptide of general formula I, according to claim 1, in which

Y^1 is Phe, Lys, Cys and Orn, and

Y^2 is Asp, Cys and Glu, and Y^1 also has the meaning of Y^2 , and Y^2 has the meaning of Y^1 , wherein Y^1 and Y^2 are linked to one another via a side chain or a B-turn mimetic agent, and

X^{1-14} is Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn, and Cit, which can be connected to one another via side chains.

4. (Previously Presented) A peptide of general formula I, according to claim 1, in which

Y^1 is Lys, Cys and Orn, and

Y^2 is Asp, Cys, and Glu, and Y^1 also has the meaning of Y^2 , and Y^2 has the meaning of Y^1 , wherein Y^1 and Y^2 are linked to one another via a side chain, and

X^6 and X^8 are Leu,

X^7 is Val and

X^{1-5} and X^{9-14} are Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn and Cit, whereby if

X^4 stands for Glu, and X^{10} stands for Lys, the latter are linked to one another via a side chain.

5. (Previously Presented) A peptide of general formula I, according to claim 1, in which

Y^1 is Lys, and

Y^2 is Asp, and Y^1 also has the meaning of Y^2 , and Y^2 has the meaning of Y^1 , wherein Y^1 and Y^2 are linked to one another via a β -turn mimetic agent, and

X^{1-14} is Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn,

Gln, Asp, Glu, Lys, Arg, His, Orn and Cit, whereby if X⁴ stands for Glu and X¹⁰ stands for Lys, the latter are linked to one another via a side chain.

6. (Previously Presented) A compound of general formula I, according to claim 1, in which

Y¹ is Lys, and

Y² is Asp, and Y¹ also has the meaning of Y², and Y² has the meaning of Y¹, wherein Y¹ and Y² are linked to one another via a β -turn mimetic agent, and

X⁶ and X⁸ are Leu,

X⁷ is Val,

X¹⁻⁵ and X⁹⁻¹⁴ are Ala, Val, Leu, Ile, Pro, Phe, Trp, Met, Gly, Ser, Thr, Cys, Tyr, Asn, Gln, Asp, Glu, Lys, Arg, His, Orn and Cit, whereby if X⁴ stands for Glu, and X¹⁰ stands for Lys, the latter are linked to one another via a side chain.

7. (Previously Presented) A peptide of general formula I, according to claim 1, of the structures

Lys-Ile-Ser-Val-Ser-Tyr-Asp-Asn-Phe-Ala-Leu-Val-Asp-D-Tyr

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Leu-Val-Phe-Glu-Arg-Thr-Lys-Ser-Asp-Thr-Asp,

15 16 17 18 19 20 21 22 23 24 25

wherein the Lys in 1-position is linked with the Asp in 13-position via a side chain,

Lys-Ile-Ser-Val-Ser-Tyr-Glu-Asn-Phe-Ala-Leu-Val-Asp-D-Tyr

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Leu-Val-Phe-Glu-Lys-Thr-Lys-Ser-Asp-Thr-Asp,

15 16 17 18 19 20 21 22 23 24 25

wherein the Lys in 1-position is linked with the Asp in 13-position, and Glu in 7-position is linked with Lys in 19-position via a side chain, and

Lys-Ile-Ser-Val-Ser-Tyr-Glu-Asn-Phe-Ala-Leu-Val-Asp-D-Tyr

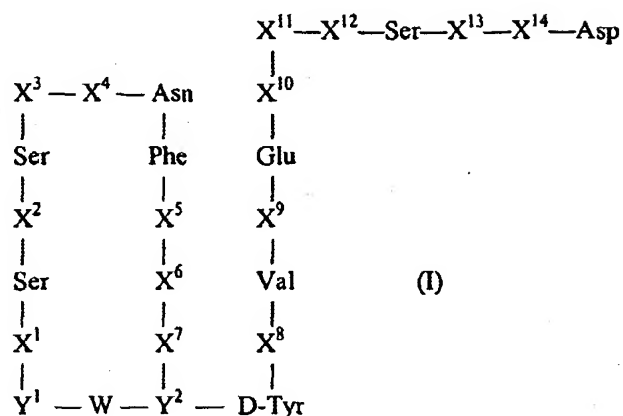
1 2 3 4 5 6 7 8 9 10 11 12 13 14

Leu-Val-Phe-Glu-Lys-Thr-Lys-Ser-Asp-Thr-Asp,

15 16 17 18 19 20 21 22 23 24 25

8. (Previously Presented) A peptide of general formula I, according to claim 1, as a pharmaceutical active ingredient.
9. (Previously Presented) A pharmaceutical composition comprising a peptide according to claim 1, and at least one pharmaceutically suitable solution or vehicle.
10. (Previously Presented) The composition of claim 9, wherein said composition is in a form suitable for intravenous, subcutaneous, oral or transdermal administration.
11. (Previously Presented) A method for treating or preventing thrombosis, unstable angina, arteriosclerosis, reocclusion of a vessel after PTCA/PTA, reocclusion of a vessel after thrombolysis for treating a myocardial infarction, or blood clotting comprising administering to a patient in need thereof a therapeutically effective amount of a peptide of claim 1.
- 12-13. (Cancelled)

14. (New) A peptide of general formula I



in which

one of Y^1 and Y^2 is Phe, Lys, Cys or Orn and the other is Asp, Cys or Glu,

W represents a side chain linkage between Y^1 and Y^2 or a β -turn mimetic agent linking Y^1 and Y^2 , and

X^{1-14} represents an amino acid, which can be linked to another X^{1-14} amino acid via the side chains of the amino acids,

wherein amino acids 1-6, 8-13 and 14-25 form a β -folded sheet structure.

15. (New) The peptide of claim 14, further comprising a side chain linkage between X^4 and X^{10} or a β -turn mimetic agent linking X^4 and X^{10} .

16. (New) The peptide of claim 14, wherein the cyclic and linear portions bind to thrombin.

17. (New) The peptide of claim 14, wherein X^{1-14} represents any naturally occurring amino acid.